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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,005	12/19/2001	L. Alexander Clemm	50325-0604	1136
29989	7590	08/10/2005	EXAMINER	
HICKMAN PALERMO TRUONG & BECKER, LLP			YANG, LINA	
2055 GATEWAY PLACE				
SUITE 550			ART UNIT	
SAN JOSE, CA 95110			PAPER NUMBER	
			2665	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/027,005

Applicant(s)

CLEMM ET AL.

Examiner

Lina Yang

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/17/2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2-9 and 13 are objected to because of the following informalities.

Claims 2-9 and 13 all start with "A method". "A method" should be changed to "The method".

Appropriate correction is required.

2. Claim 9 is objected to because of the following informalities.

Please spell out "TDM" and "CCS" recited in the claim.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 6-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Elliott et al. (US Patent No. 6,614,781 B1) view of Zirojevic et al. (U. S. Patent Application No. 20030035417 A1).

Regarding claims 1, 10 and 11 (differ by statutory classes), Elliott teaches a method of managing packet voice networks, the method comprising the computer-implemented steps of (col. 48 lines 63-67 and col. 59 lines 3-5):

creating and storing a virtual switch (system in fig. 4A) having a media gateway controller (fig. 1, "soft switch" in fig. 4A) and one or more associated media gateways (fig. 1, "gateway" in fig. 4A) ;

receiving user input that specifies a configuration operation on the virtual switch and one or more parameter values (figs. 4F-4I; through "configuration server"); and

automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input (figs. 4F-4I; through "configuration server").

Elliott further teaches that the soft switch is an object oriented programming model (col. 31 lines 54-48; fig. 4B-4E).

Elliott differs from the claimed invention in that Elliott does not specifically teaches that virtual switch object contains one or more associated media gateway. However, Zirojevic teaches a virtual switch as a software object representing one or more actual hardware switch devices (gateways) contained in the switching system (fig. 4 and [0127]). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include one or more associated gateway in

the virtual switch as taught by Zirojevic in the assembly of Elliott in order to combine/integrate the gateways with the gateway controller for better management.

Regarding claim 2, Elliott further teaches that the virtual switch object is created as part of a network management application computer program (Network management component 118 in fig. 1; col. 20 lines 30-36) wherein the network management application is communicatively coupled to an operational support system ("configuration server" in fig. 2A-1); and to one or more element management systems ("soft switch" system in fig. 1), and further comprising the steps of issuing one or more configuration requests to one or more of the element management systems as part of the step of automatically issuing configuration instructions (figs. 4F-4I; through "configuration server").

Regarding claim 6, the combined assembly of Elliott and Zirojevic further teaches that configuration operation of the step of receiving user input is selected from among the set consisting of: associate/disassociate a media gateway from a virtual switch, add or remove or modify parameters of a primary rate interface (PRI) backhaul service; add or remove or modify a trunk, a trunk group, routes, or route lists; add or remove or modify a customer; or turn up or tear down or modify service for a customer (fig. 19 in Zirojevic and col. 19 lines 4-8 and fig. 4A in Elliott).

Regarding claim 7, the combined assembly of Elliott and Zirojevic further teaches that the virtual switch object comprises programmatic objects representing a media gateway controller ("soft switch" in fig. 1 of Elliott) and a media gateway ("gateway" in fig. 1 of Elliott), and associations between the media gateway and media gateway controller ("402", "414", "412" in fig. 4A of Elliott).

Regarding claim 8, the combined assembly of Elliott and Zirojevic further teaches that the virtual switch object comprises programmatic objects representing a media gateway controller ("soft switch" in fig. 1 of Elliott), a media gateway ("gateway" in fig. 1 of Elliott), associations between the media gateway and media gateway controller ("402", "414", "412" in fig. 4A of Elliott); one or more connection termination points of the media gateway controller and the media gateway (inherently they are termination points at the ends of "402" between "Soft Switch" and "SS7 Gateway" in fig. 4A of Elliott), one or more virtual trunks ("412" in fig. 4A of Elliott); and one or more physical resources (for example physical connection media "414" in fig. 4A of Elliott).

Regarding claim 9, the combined assembly of Elliott and Zirojevic further teaches that the user input comprises user input selecting a virtual switch and all the available devices and connections (fig. 19 in Zirojevic).

The combined assembly of Elliott and Zirojevic differs from the claimed invention in that the assembly does not specifically teach user input selecting an "Add PRI Signaling Backhaul" function; and wherein the configuration instructions instruct the

media gateway and media gateway controller, as specified, to add a line with TDM endpoints and a CCS channel on the selected media gateway; add a new trunk group at the media gateway controller and associate it with a customer; add one or more trunks at the media gateway controller; associate the trunks with a corresponding endpoint of the media gateway, verify that a signaling backhaul connection has been set up; set up a signaling backhaul connection if required; set up a cross-connect between the CCS channel and the signaling backhaul connection at the media gateway, if required, as determined by the type of media gateway.

However, the combined assembly of Elliott and Zirojevic teaches the trunking Gateway architecture in fig. 11A (in Elliott). It is obvious for the one of ordinary skill in the art to see the claimed limitations are the connection configuration parameters in fig. 11A and they can be coupled to the configuration in fig. 19 of Zirojevic. Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include user input selecting an "Add PRI Signaling Backhaul" function; and wherein the configuration instructions instruct the media gateway and media gateway controller, as specified, to add a line with TDM endpoints and a CCS channel on the selected media gateway; add a new trunk group at the media gateway controller and associate it with a customer; add one or more trunks at the media gateway controller; associate the trunks with a corresponding endpoint of the media gateway, verify that a signaling backhaul connection has been set up; set up a signaling backhaul connection if required; set up a cross-connect between the CCS channel and

the signaling backhaul connection at the media gateway, if required, as determined by the type of media gateway, in order to provide detailed configuration function.

Regarding claim 13, the combined assembly of Elliott and Zirojevic further teaches that the virtual switch object is created as part of a network management application computer program ("Network management component 118" in fig. 1 and col. 20 lines 30-36 of Elliott) that is interfaced to an operational support system ("configuration server" in fig. 2A-1 of Elliott), and wherein the step of receiving user input comprises receiving user input from an interface to the operational support system that specifies a configuration operation on the virtual switch and one or more parameter values (figs. 4F-4I; through "configuration server" of Elliott).

4. Regarding claim 12, Elliott teaches an apparatus for managing packet voice networks using a virtual switch approach, comprising:

a network interface that is coupled to the data network for receiving one or more packet flows therefrom (inherently for the designed function of the computer);

a processor (fig. 70 B col. 58 lines 45-47);

one or more stored sequences of instructions which, when executed by the processor, cause the processor to carry out the steps of (col. 48 lines 63-67 and col. 59 lines 3-5):



creating and storing a virtual switch (system in fig. 4A) having a media gateway controller (fig. 1, "soft switch" in fig. 4A) and one or more associated media gateways (fig. 1, "gateway" in fig. 4A);

receiving user input that specifies a configuration operation on the virtual switch and one or more parameter values (figs. 4F-4I; through "configuration server"); and

automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input (figs. 4F-4I; through "configuration server").

Elliott further teaches that the soft switch is an object oriented programming model (col. 31 lines 54-48; fig. 4B-4E).

Elliott differs from the claimed invention in that Elliott does not specifically teaches that virtual switch object contains one or more associated media gateway. However, Zirojevic teaches a virtual switch as a software object representing one or more actual hardware switch devices (gateways) contained in the switching system (fig. 4 and [0127]). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include one or more associated gateway in the virtual switch as taught by Zirojevic in the assembly of Elliott in order to combine/integrate the gateways with the gateway controller for better management.

creating and storing a virtual switch object, wherein the virtual switch object represents a virtual switch having a media gateway controller and one or more associated media gateways ;

receiving user input that specifies a configuration operation on the virtual switch and one or more parameter values, and

automatically issuing one or more configuration instructions to both the media gateway controller and the media gateway, resulting in configuring both the media gateway controller and the media gateway as specified in the user input

5. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Elliott et al. (US Patent No. 6,614,781 B1) view of Zirojevic et al. (U. S. Patent Application No. 20030035417 A1), and further in view of Miyazawa et al. (U. S. Patent Application No. 20010003189 A1).

Regarding claim 3, the combined assembly of Elliott and Zirojevic further teaches that the virtual switch object is created as part of a network management application computer program that generates a graphical user interface that displays an icon representation of the virtual switch (fig. 17), and receiving user input (fig. 18). The combined assembly of Elliott and Zirojevic differs from the claimed invention in that the assembly does not specifically teach that the step of receiving user input comprises the step of receiving user input dragging the icon representation and dropping the icon representation in a data entry hold. However, it's well known in the art that most current

computers provide user interfaces of "dragging and dropping". For example, Miyazawa teaches that most user interfaces of current computers are graphical and are operated by dragging and dropping icons, and have superb operability ([0005]). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include that the step of receiving user input comprises the step of receiving user input dragging the icon representation and dropping the icon representation in a data entry hold, as taught by Miyazawa in the combined assembly of Elliott and Zirojevic in order to provide more friendly user interface.

Regarding claim 4, the combined assembly of Elliott and Zirojevic further teaches that displaying the icon representation in an object holding area of the graphical user interface when the media gateway associated with the object is not then currently associated with a media gateway controller (fig. 19 in Zirojevic).

Regarding claim 5, the combined assembly of Elliott and Zirojevic further teaches that the graphical user interface comprises a tree view of the virtual switch and each media gateway or media gateway controller associated therewith, a topology map of a network topology that includes the virtual switch, and an object holding area that displays un-associated network elements (fig. 17 in Zirojevic).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lina Yang whose telephone number is (571)272-3151. The examiner can normally be reached on 7:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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